Inventor: Howard Davidson Appl. Ser. No.: 10/600,945

Atty. Dkt. No.: 5181-83401

Amendments to the Claims

Please cancel claims 19 and 32-36 without prejudice.

The following listing of claims will replace all prior versions and listings of claims in the

application:

Listing of Claims:

1-13. (cancelled)

14. (currently amended): A method of coupling a carbon foam material to an integrated

circuit comprising:

coating a carbon foam material with a first solder; and

coating a surface of an integrated circuit with a second solder; and

coupling the carbon foam material coated with the first solder to the integrated circuit

coated with the second solder such that thermal energy from the integrated circuit is

transferred to the carbon foam material.

15. (previously presented): The method of claim 14, further comprising cleaning a surface of

the integrated circuit.

16. (previously presented): The method of claim 14, further comprising cleaning a surface of

the integrated circuit by backsputtering the surface of the integrated circuit with an inert

gas.

17. (previously presented): The method of claim 14, further comprising cleaning a surface of

the carbon foam material.

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18. (previously presented): The method of claim 14, further comprising cleaning a surface of the carbon foam material by backsputtering with an inert gas.

Claims 19-21 (cancelled)

- 22. (currently amended): The method of claim 14, wherein a-the second solder couples the integrated circuit and the carbon foam material, and wherein the second solder comprises copper, nickel, gold, silver, lead, silicon, indium, bismuth, titanium, tin, or mixtures thereof.
- 23. (previously presented): The method of claim 14, wherein coupling the carbon foam material to the integrated circuit comprises coupling the integrated circuit and the carbon foam material with a universal solder.
- 24. (previously presented): The method of claim 14, wherein coupling the carbon foam material to the integrated circuit comprises coupling the integrated circuit and the carbon foam material with adhesives.
- 25. (previously presented): The method of claim 14, further comprising forming a silicide on a surface of the integrated circuit.
- 26. (previously presented): The method of claim 25, further comprising coating a surface of the silicide with an adherent metal.
- 27. (previously presented): The method of claim 14, wherein coupling the carbon foam material to the integrated circuit comprises heating the carbon foam material with the integrated circuit in an inert atmosphere furnace.

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28. (previously presented): The method of claim 14, wherein coupling the carbon foam material to the integrated circuit comprises heating the carbon foam material with the

integrated circuit in a reducing atmosphere furnace.

29. (previously presented): The method of claim 14, wherein coupling the carbon foam

material to the integrated circuit comprises heating the carbon foam material with the

integrated circuit in a vacuum furnace.

30. (previously presented): The method of claim 14, wherein coupling the carbon foam

material to the integrated circuit comprises heating the carbon foam material with the

integrated circuit on a hot plate.

Claim 31-36 (cancelled)

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